

PATENT COOPERATION TREATY

PCT

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

10/517932

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 21148PCTJO/hw	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/SE2003/000994	International filing date (day/month/year) 13.06.2003	Priority date (day/month/year) 20.06.2002
International Patent Classification (IPC) or national classification and IPC F16L 55/163 // F16L 55/1645		
Applicant Edström, Sten		

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 4 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
 - ☐ (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

- This report contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

Date of submission of the demand 20.01.2004	Date of completion of this report 04.05.2004
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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

Intern application No.

PCT/SE2003/000994

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☒ This report is based on a translation from the original language into the following language English, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☒ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ the international application as originally filed/furnished
- ☐ the description:
- pages _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the claims:
- pages _____ as originally filed/furnished
- pages* _____ as amended (together with any statement) under Article 19
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the drawings:
- pages _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____

- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/SE2003/000994

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>1-18</u>	YES
	Claims		NO
Inventive step (IS)	Claims	<u>1-18</u>	YES
	Claims		NO
Industrial applicability (IA)	Claims	<u>1-18</u>	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

The claimed invention relates to a method for sealing and/or reconditioning of pipes through spraying a fluid coating material towards the inner wall of the pipe. At least one material piece divided in the longitudinal direction thereof is held together under pretension through means to a pipe piece with an outer diameter being less than the inner diameter of the pipe is before the spraying introduced into the pipe to a location for a substantial hole in the pipe wall for covering the hole. The means for holding it together is then broken so that the pipe piece will bear under pretension against the inner wall of the pipe and form an auxiliary wall over the hole retaining the material sprayed inside the pipe. The claimed invention also relates to a member adapted to be used for the method.

Reference is made to the following documents:

D1: NL 8204847 A
D2: US 5186215 A
D3: SE 343357 B
D4: SE 458950 B
D5: SE 504663 C2

The document D1 is regarded as being the closest prior art to the subject-matter of claim 1 and 18 and discloses (the references in parentheses applying to this document):

A method for improving the inner walls of pipes (2) through spraying a fluid coating material towards the inner wall of the pipe. At least one material piece is divided in the longitudinal direction thereof and held together under pretension through means to a pipe piece with an outer

.../...

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V

diameter being less than the inner diameter of the pipe is before the spraying introduced into the pipe to a location for an improving pipe wall. Means for holding it together is arranged.

The subject-matter of claim 1 and 18 therefore differs from this known D1 in that:

It is not shown in D1 that the means for holding the pipe piece together is broken so that the pipe piece will bear under pretension against the inner wall of the pipe and form an auxiliary wall over a substantial hole retaining the material sprayed inside the pipe.

The problem to be solved by the present invention may be regarded as that a very thin material piece can be used to form the auxiliary wall and hence the reduction of the inner diameter of the pipe as of application of the material piece is negligible.

There is no indication in D1 to D2-D5 for a person skilled in the art that would lead to a method for sealing/reconditioning of pipes where it is arranged means for holding a pipe piece so that the means can be broken and that the pipe piece will bear under pretension against the inner wall of the pipe and form an auxiliary wall over a hole retaining the material sprayed inside the pipe solving the problem that the reduction of the inner diameter of the pipe and the application of the material is negligible.

Neither the cited prior art gives any indication that would lead a person skilled in the art to the claimed member.

Therefore, the claimed invention is not obvious to a person skilled in the art.

Accordingly, the invention defined in claims 1-18 is novel and is considered to involve an inventive step. The invention is industrially applicable.